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1005

#2

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RAW SEQUENCE LISTING

DATE: 07/27/2001

PATENT APPLICATION: US/09/880,711

TIME: 14:17:41

Input Set : A:\lex-0191-usa sequence list.txt

Output Set: N:\CRF3\07272001\I880711.raw

PS

4 <110> APPLICANT: Abuin, Alejandro
5 Zambrowicz, Brian
6 Sands, Arthur T.
8 <120> TITLE OF INVENTION: Novel Murine Polynucleotide Sequences
9 and Mutant Cells and Mutant Animals Defined Thereby
12 <130> FILE REFERENCE: LEX-0191-USA
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/880,711
C--> 14 <141> CURRENT FILING DATE: 2001-06-12
14 <150> PRIOR APPLICATION NUMBER: US 60/211,230
15 <151> PRIOR FILING DATE: 2000-06-12
17 <160> NUMBER OF SEQ ID NOS: 1209
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 149
23 <212> TYPE: DNA
24 <213> ORGANISM: Mus musculus
26 <220> FEATURE:
27 <221> NAME/KEY: misc_feature
28 <222> LOCATION: (1)...(149)
29 <223> OTHER INFORMATION: n = A,T,C or G
31 <400> SEQUENCE: 1
W--> 32 tttgctttga ttctgagaaa taatatgtga aacaagaaca aagacggggt ggaanagggc 60
W--> 33 aagangaaaag ggggggatgg aangaaaccc tgcagccacc aacacaataa acacaataaa 120
34 ctgtatcctg accacctcaa aaaaaaaaaa 149
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 202
38 <212> TYPE: DNA
39 <213> ORGANISM: Mus musculus
41 <220> FEATURE:
42 <221> NAME/KEY: misc_feature
43 <222> LOCATION: (1)...(202)
44 <223> OTHER INFORMATION: n = A,T,C or G
46 <400> SEQUENCE: 2
W--> 47 actgaggggt ttataaacag atttcagtc aacnaaaggt aacatttcac ttgttgccct 60
48 tccagtttca agcaccaact caccagcaaa aattttaccg aaaaccttag ggccaataaa 120
W--> 49 tgtgaatggt ggaccccaaa tgatnatgac cacaccgcaa aaaattgcca nttcaagaag 180
W--> 50 tgttctgatt gggaatccat at 202
52 <210> SEQ ID NO: 3
53 <211> LENGTH: 113
54 <212> TYPE: DNA
55 <213> ORGANISM: Mus musculus
57 <220> FEATURE:
58 <221> NAME/KEY: misc_feature
59 <222> LOCATION: (1)...(113)
60 <223> OTHER INFORMATION: n = A,T,C or G
62 <400> SEQUENCE: 3
W--> 63 tggtcaccct gctaenggat tcnngaaatt atntggcgtg aatcggggccc ctttccctg 60

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```

64 cttcataact gcatgcagaa tattaaaatt gagctttgat cagaaaaaaa aaa      113
66 <210> SEQ ID NO: 4
67 <211> LENGTH: 216
68 <212> TYPE: DNA
69 <213> ORGANISM: Mus musculus
71 <220> FEATURE:
72 <221> NAME/KEY: misc_feature
73 <222> LOCATION: (1)...(216)
74 <223> OTHER INFORMATION: n = A,T,C or G
76 <400> SEQUENCE: 4
W--> 77 acgttcagca ctactgtaac gggacaccgt ctgategcgc tgtagcttgc anatctnncn      60
W--> 78 tcctnctnctc tcttttnnaa agacctgctt cgacctccgt atggnntnaa acaccnattt      120
W--> 79 ccagaaatgc tgnagactnct nntactagtgc tccaccanta cttcctctat tcttctncc      180
W--> 80 actantacta ctaatnctga ggatataagg aaaact      216
82 <210> SEQ ID NO: 5
83 <211> LENGTH: 125
84 <212> TYPE: DNA
85 <213> ORGANISM: Mus musculus
87 <400> SEQUENCE: 5
88 gtgtgagctc totgtttgct gctccagtcg ctgtgcttgc ctgctgtggt gctccctac      60
89 cagggcagac tcttgtgctt ttggaaccat aagccaaata aaccttcct tccataaaaa      120
90 aaaaaa      125
92 <210> SEQ ID NO: 6
93 <211> LENGTH: 134
94 <212> TYPE: DNA
95 <213> ORGANISM: Mus musculus
97 <400> SEQUENCE: 6
98 aggtgtggag ctctctgctt agctgctcca gtccgctgtg ctttgcttgc tgtggtgcct      60
99 cctaccagg acagactctt gttgcttttg gaaaccataa agccaaataa accttcctt      120
100 ccataaaaaa aaaa      134
102 <210> SEQ ID NO: 7
103 <211> LENGTH: 125
104 <212> TYPE: DNA
105 <213> ORGANISM: Mus musculus
107 <400> SEQUENCE: 7
108 gtgtgactct ctgcttgctg ctccagtcgc tgtgcttgcc tgctgtggtg cctccctacc      60
109 aggaacaaac tcttgtgctt ttggaaccat aagccaaata aaccttcct tccataaaaa      120
110 aaaaaa      125
112 <210> SEQ ID NO: 8
113 <211> LENGTH: 124
114 <212> TYPE: DNA
115 <213> ORGANISM: Mus musculus
117 <220> FEATURE:
118 <221> NAME/KEY: misc_feature
119 <222> LOCATION: (1)...(124)
120 <223> OTHER INFORMATION: n = A,T,C or G
122 <400> SEQUENCE: 8
123 tgtgagctct ctgcttgctg ctccagtcgc tgtgcttgcc tgctgtggtg cctccctacc      60
W--> 124 aggacanact cttgtgctt ttggaaccata agccaaataa accttcctt ccataaaaaa      120

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```

125 aaaa 124
127 <210> SEQ ID NO: 9
128 <211> LENGTH: 218
129 <212> TYPE: DNA
130 <213> ORGANISM: Mus musculus
132 <220> FEATURE:
133 <221> NAME/KEY: misc_feature
134 <222> LOCATION: (1)...(218)
135 <223> OTHER INFORMATION: n = A,T,C or G
137 <400> SEQUENCE: 9
W--> 138 caaagggaacc actgtttnga antatthttga aggtctcance accnaagctt tagggacagg 60
W--> 139 gtatthttatc acagcaacaa aaatgaaacc naaacaactc cacaataaaa ttcttgantt 120
W--> 140 tcttgggggcc aaaaaataa ctcgatnana taaagacact ggccaagcnt gacctccaaa 180
W--> 141 ntttgccct tgcataaagg aaaaaattaa ttccttca 218
143 <210> SEQ ID NO: 10
144 <211> LENGTH: 130
145 <212> TYPE: DNA
146 <213> ORGANISM: Mus musculus
148 <400> SEQUENCE: 10
149 ggaggtagtg agctctctgc ttgtgtctcc agtcgtgtg cttgcctgct gtggtgctc 60
150 cctaccagga cagactcttg tgcttttga accataagcc aaataaaccc ttccttccat 120
151 aaaaaaaaaa 130
153 <210> SEQ ID NO: 11
154 <211> LENGTH: 132
155 <212> TYPE: DNA
156 <213> ORGANISM: Mus musculus
158 <220> FEATURE:
159 <221> NAME/KEY: misc_feature
160 <222> LOCATION: (1)...(132)
161 <223> OTHER INFORMATION: n = A,T,C or G
163 <400> SEQUENCE: 11
W--> 164 ggctgtagtt gagctctctg catgtctgggt ncagnagctg tgcttgctg ctgtggtgcc 60
165 tccctaccag gacagactct tgtgttttg gaaccataag ccaaataaac cttccttcc 120
166 ataaaaaaaa aa 132
168 <210> SEQ ID NO: 12
169 <211> LENGTH: 118
170 <212> TYPE: DNA
171 <213> ORGANISM: Mus musculus
173 <220> FEATURE:
174 <221> NAME/KEY: misc_feature
175 <222> LOCATION: (1)...(118)
176 <223> OTHER INFORMATION: n = A,T,C or G
178 <400> SEQUENCE: 12
W--> 179 ctctctgctt gctgctccan tcgtgtgtgt tgctgtgtgt ggtgcctccc taccaggcca 60
180 aactcttgtg cttttggaac cataagccaa ataaaccctt cttccataa aaaaaaaa 118
182 <210> SEQ ID NO: 13
183 <211> LENGTH: 128
184 <212> TYPE: DNA
185 <213> ORGANISM: Mus musculus

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```

187 <400> SEQUENCE: 13
188 aggtgtgagc tctctagctt gctgctccag tcgctgtgct tgctgtgtgt ggtgcctccc      60
189 taccaggaca aactcttggtg cttttggaac cataagccaa ataaaccctt ccttcataa      120
190 aaaaaaaaaa                                     128
192 <210> SEQ ID NO: 14
193 <211> LENGTH: 151
194 <212> TYPE: DNA
195 <213> ORGANISM: Mus musculus
197 <220> FEATURE:
198 <221> NAME/KEY: misc_feature
199 <222> LOCATION: (1)...(151)
200 <223> OTHER INFORMATION: n = A,T,C or G
202 <400> SEQUENCE: 14
W--> 203 ggggtagcgc cagaaaccgt nagtcntnta taatntagac aaccctgggg ttntcgccat      60
W--> 204 ctcacctctc ancnaaaat tcagggttan anctccagg atacacagct gatctccagc      120
W--> 205 anntgggcna gttctagtga aaaaaataaa a                                     151
207 <210> SEQ ID NO: 15
208 <211> LENGTH: 125
209 <212> TYPE: DNA
210 <213> ORGANISM: Mus musculus
212 <220> FEATURE:
213 <221> NAME/KEY: misc_feature
214 <222> LOCATION: (1)...(125)
215 <223> OTHER INFORMATION: n = A,T,C or G
217 <400> SEQUENCE: 15
W--> 218 tgtgagctct ctgcttgctg ctccantcgc tgtgcttgcc tgctgtggtg cctccctacc      60
W--> 219 aggaacaaac tcttgctgctt ttggaaccat aanccaaata aacccttcct tccataaaaa      120
220 aaaaaa                                     125
222 <210> SEQ ID NO: 16
223 <211> LENGTH: 152
224 <212> TYPE: DNA
225 <213> ORGANISM: Mus musculus
227 <220> FEATURE:
228 <221> NAME/KEY: misc_feature
229 <222> LOCATION: (1)...(152)
230 <223> OTHER INFORMATION: n = A,T,C or G
232 <400> SEQUENCE: 16
W--> 233 gtccatctca tcacctcag gatcncctc tgaccacngc aggcccagtg gaagccancc      60
W--> 234 ttcctacgcc cagtnagatg accctggaaa cagantgatg ccaacctgaa tatgtcaact      120
W--> 235 tctgggtgta tntgaatgaa aatatatctt gt                                     152
237 <210> SEQ ID NO: 17
238 <211> LENGTH: 151
239 <212> TYPE: DNA
240 <213> ORGANISM: Mus musculus
242 <400> SEQUENCE: 17
243 gctgacctgt tgtcagggtt ggagcttccc cgctcatctt tctgcccgcc cactgctgga      60
244 acctgccgct ttgctgttcc gaagccatca cgtgatcacc ctgctactgg acttcaagat      120
245 tatttggcgg gaatttgggg cctcctccgct t                                     151
247 <210> SEQ ID NO: 18

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```

248 <211> LENGTH: 121
249 <212> TYPE: DNA
250 <213> ORGANISM: Mus musculus
252 <220> FEATURE:
253 <221> NAME/KEY: misc_feature
254 <222> LOCATION: (1)...(121)
255 <223> OTHER INFORMATION: n = A,T,C or G
257 <400> SEQUENCE: 18
258 agtattggat acaatgcgac tactcgatct cttcaggttc ctgctgccag cctccccac      60
W--> 259 cngatggac tataccctag cattccagtc aaaataaagc taacttgccc aaaaaaaaaa      120
260 a                                                                    121
262 <210> SEQ ID NO: 19
263 <211> LENGTH: 138
264 <212> TYPE: DNA
265 <213> ORGANISM: Mus musculus
267 <400> SEQUENCE: 19
268 gaactgagtg acaactgccc tgaaattctg cccctgccga gagtctgaac ctgtcttcct      60
269 gagagattcc tgaataaact gccagcctgg cagcctggaa tgactccagg caccaagagt      120
270 ggaactggcg acttactg                                                                    138
272 <210> SEQ ID NO: 20
273 <211> LENGTH: 130
274 <212> TYPE: DNA
275 <213> ORGANISM: Mus musculus
277 <400> SEQUENCE: 20
278 ttaggtgtga gctctctgct tgcctgtcca gtcgctgtgc ttgcctgctg tgggtgcctcc      60
279 ctaccaggac acgactcttg tgcttttgga accataagcc aaataaaccc ttccttccat      120
280 aaaaaaaaaa                                                                    130
282 <210> SEQ ID NO: 21
283 <211> LENGTH: 126
284 <212> TYPE: DNA
285 <213> ORGANISM: Mus musculus
287 <400> SEQUENCE: 21
288 ggtgtgagct ctctgcttgc tgcctcagtc gctgtgcttg cctgctgtgg tgccctcccta      60
289 ccaggacaga ctcttgctgt tttggaacca taagccaaat aaacccttcc ttccataaaa      120
290 aaaaaa                                                                    126
292 <210> SEQ ID NO: 22
293 <211> LENGTH: 126
294 <212> TYPE: DNA
295 <213> ORGANISM: Mus musculus
297 <400> SEQUENCE: 22
298 ggtgtgagct ctctgcttgc tgcctcagtc gctgtgcttg cctgctgtgg tgccctcccta      60
299 ccaggacaga ctcttgctgt tttggaacca taagccaaat aaacccttcc ttccataaaa      120
300 aaaaaa                                                                    126
302 <210> SEQ ID NO: 23
303 <211> LENGTH: 126
304 <212> TYPE: DNA
305 <213> ORGANISM: Mus musculus
307 <400> SEQUENCE: 23
308 ggtgtgagct ctctgcttgc tgcctcagtc gctgtgcttg cctgctgtgg tgccctcccta      60

```

→ Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

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Input Set : A:\lex-0191-usa sequence list.txt

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L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:63 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:78 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:80 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:540 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43
L:565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46
L:581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46
L:768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65
L:783 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66
L:784 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66
L:817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69
L:880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75

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L:881 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75
L:924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79
L:925 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79
L:938 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80